

Abstract of the Disclosure

Thermal conductivity of glassware forming blank molds and blow molds of Ni-Resist ductile iron is selectively controlled by formation of compacted graphite in the mold microstructure during preparation of the melt and casting of the mold bodies. Specifically, with a Type D5 Ni-Resist ductile iron according to ASTM-A439-84, compacted graphite is selectively
5 formed in the cast microstructure of the mold body by reducing the magnesium and sulphur concentrations in the iron composition to the range of 0.01 to 0.04 wt % magnesium and 0.00 to 0.01 wt % sulphur, and adding titanium to the iron composition in the range of 0.10 to 0.25 wt % titanium. Whereas formation of compacted graphite in the cast microstructure is normally considered to be undesirable for glassware forming molds, it has been found that formation of
10 a small but appreciable amount of graphite provides the opportunity selectively to tailor the thermal conductivity characteristics of the mold body.

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